Long-Term Clinical Outcomes after Catheter Ablation for Atrial Fibrillation in Patients with Prior Myocardial Infarction.

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Introduction: Atrial fibrillation (AF) is common in patients with prior myocardial infarction (MI). We evaluated the data of AF ablation in these patients.

Methods: We evaluated 53 patients with prior MI among 1617 patients undergoing radiofrequency catheter ablation (RFCA) in our hospital during 2004-2017.

Result: The median follow-up period was 1234 days in MI group vs. non-MI group, the percentage of male was 75% vs. 71.5% and the average age was 71.7±1.3 vs. 67.8±0.2 years and the percentage of persistent AF was 41% vs. 36% at undergoing 1st RFCA. In MI group, CHADS2 score was higher (2.1±0.1 vs. 1.2±0.0, p<0.001) and left ventricular ejection function (LVEF) before 1st ablation was lower (55.9±1.6 vs. 64.5±0.3, p<0.001) and left atrial diameter before 1st ablation was larger (45.6±1.0 vs. 41.4±0.2, p<0.001). In MI group, the percentage of recurrence of AF after last ablation was higher (26.9% vs. 12.8%, p=0.003) at the last follow-up date. There was no significant difference between MI group and non-MI group about the number of times of ablation session (1.3±0.0 vs. 1.3±0.0, p=0.68) and the percentage of anti-arrhythmic drug dosage (27% vs. 19%, p=0.21). There was no significant difference about other main events such as stroke and bleeding.

Conclusion: In patients with prior MI, the rate of recurrence after AF ablation was higher. This may be related to lower EF and larger left atrium.